



Section F

Spent Nuclear Fuel

PROJECT MANAGERS

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INTRODUCTION

The Spent Nuclear Fuel (SNF) Project consists of Project Baseline Summary (PBS) RL-RS03, Work Breakdown Structure (WBS) 3.2.3.

NOTE: Unless otherwise noted, all information contained herein is as of the end of October 2002.

Fiscal year (FY) to date milestone performance (EA, HQ, and RL) shows no milestones due. One FY 2002 milestone is overdue.

NOTABLE ACCOMPLISHMENTS

Production Improvements — The project continues to realize substantial productivity improvement as a result of steps taken to improve equipment reliability, processing times and process management. These improvements are demonstrated by the project going from an average of 5.6 MCOs per month from January through May 2002, to an average of 13.8 MCOs per month from June through October 2002. The project continues to focus on improvements through the Requirements Improvement Team, which identified thirteen initiatives that can improve fuel removal and conditioning process times. Three of those initiatives have been implemented.

Fuel Movement Activities — During this reporting period, the project shipped 19 Multi-Canister Overpacks (MCOs) containing 91.3 Metric Tons of Heavy Metal (MTHM) from K West (KW) to the Cold Vacuum Drying Facility (CVDF). Cumulatively, a total of 138 MCOs containing 716.24 MTHM have been shipped.

Fuel Transfer System (FTS) — Activities included:

- Conducted Contractor Operational Readiness Review (ORR) through October 10, 2002.

Site-Wide Activities — The project continues to make progress toward consolidating non-production SNF on the central plateau. The following activities were completed in October:

- Received one shipments of Light Water Reactor (LWR) fuel from the 324 Building during the reporting period. Five of a total of six LWR shipments have been received to date.
- Received one additional shipments of Shippingport Reactor SNF from T-Plant. Five of a total of 18 shipments have been received to date.
- Completed Neutron Radiography Facility (NRF) Training, Research and Isotope Production, General Atomics (TRIGA) fuel shipments from the 400 Area Interim Storage Area (ISA). The last three of a total of four shipments were received during the reporting period.

Sludge Water System (SWS) — Activities included:

- Sludge Retrieval System (SRS) construction activities are in progress: Installation of in-basin pipe/electrical and mechanical equipment; installation of specialty sections pipe shielding; and modifications to HECO crane.
- Completed installation of SRS Hazelton pumps, strainers and spool pieces and pipe shielding (with the exception of specialty sections).

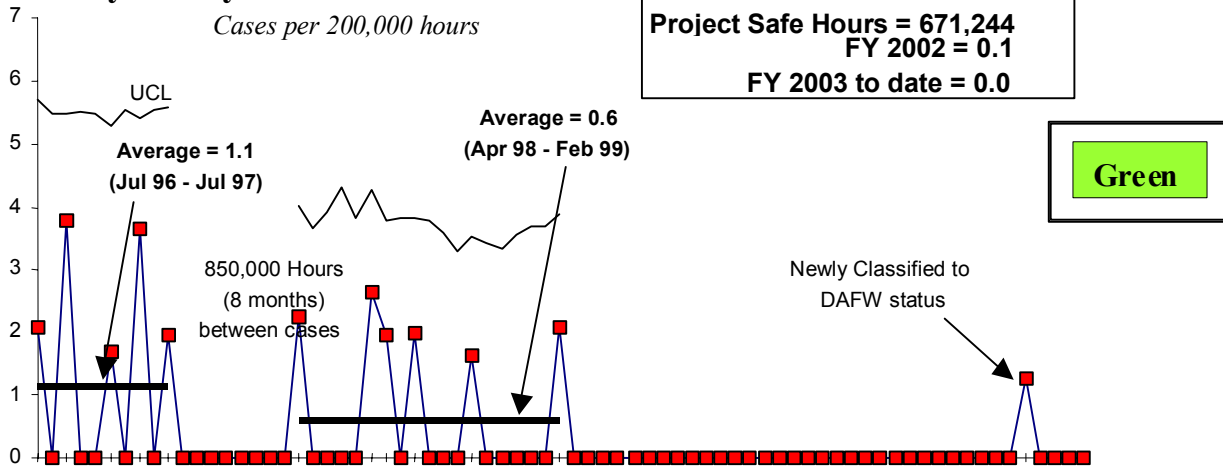
Canister Cleaner Operations — The project has cumulatively removed a total of 1029 canisters and 706 lids from the K Basins, and shipped a total of 980 canisters to Environmental Restoration Disposal Facility (ERDF).

SAFETY

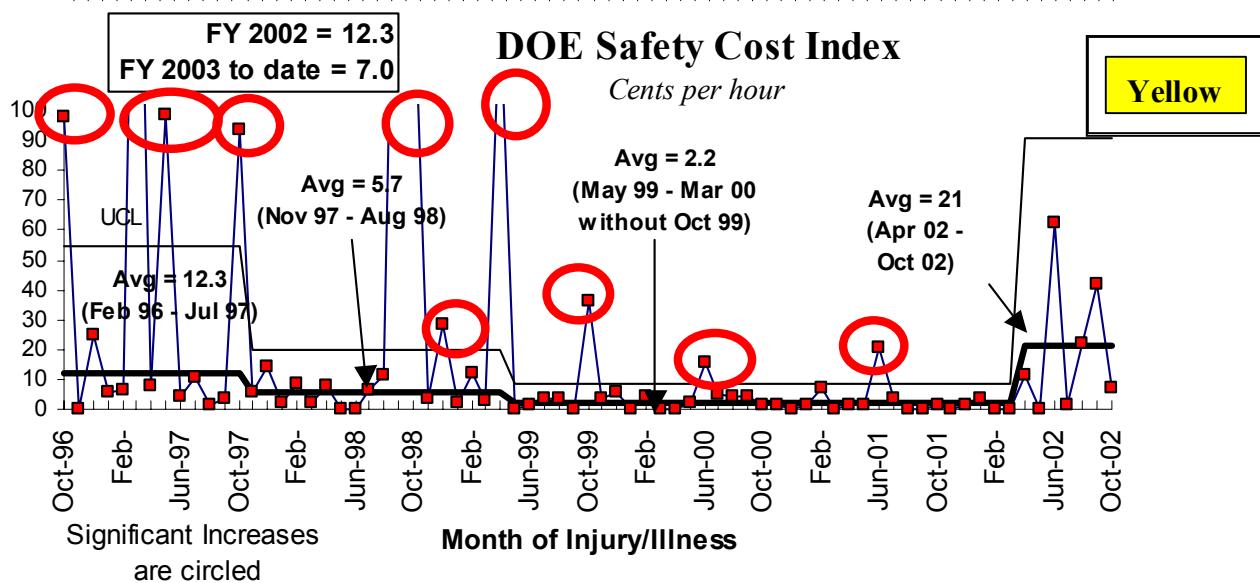
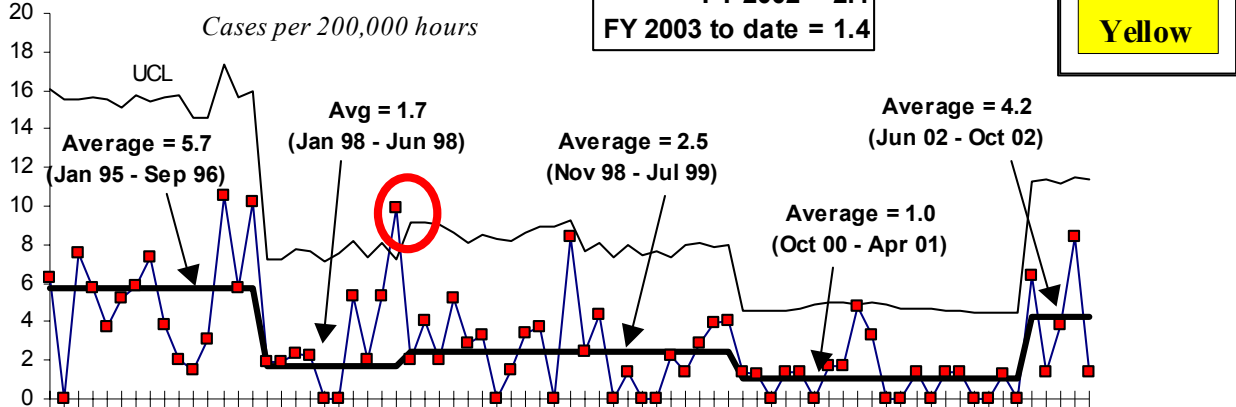
No Lost Away Workday injuries were reported within the SNF Project, thus allowing an achievement of over 671 thousand safe work hours by the end of October 2002. Efforts continue to improve safety performance within the Project. Working groups are underway to develop a project-wide Safety Improvement Plan (SIP) targeted for issuance in December 2002. A team has also been identified to develop a KW Focus Plan, which will concentrate on soft tissue injury reductions. Implementation of all recommended actions is targeted for March 31, 2003. Emphasis continues to be placed on management commitment and worker involvement utilizing the Integrated Safety Management (ISM) System.

Safety (Continued)

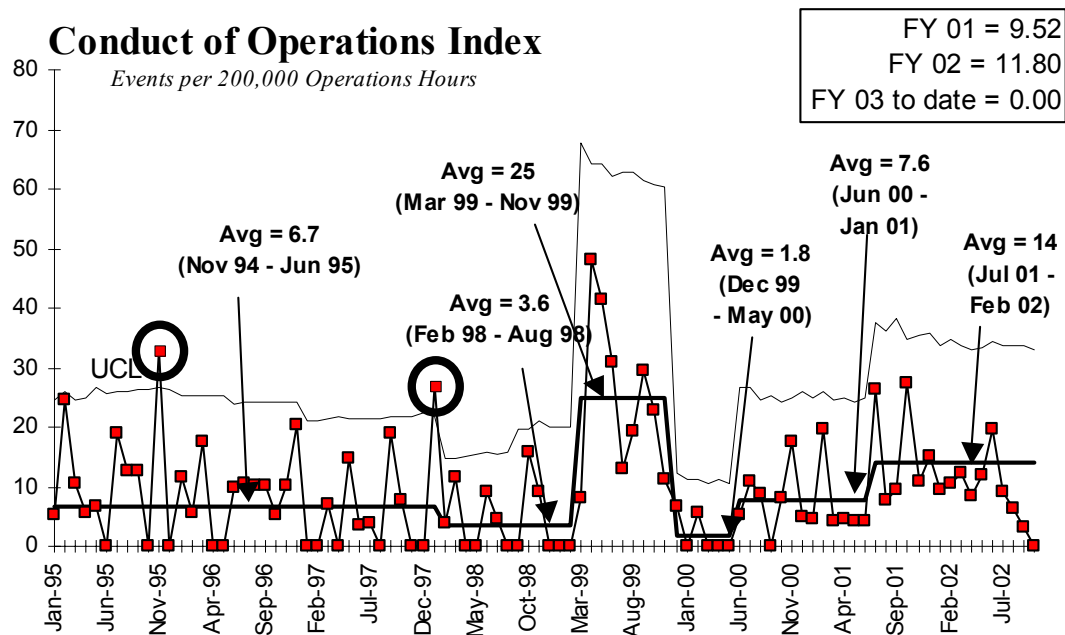
Days Away From Work Case Rate



OSHA Recordable Case Rate



Conduct of Operations



The SNF Project has completed all actions except one identified in the CONOPs Improvement Plan. The project conducted a quarterly CONOPs review which indicates that personnel performance areas are trending positively. The manager-in-the-field activities will continue to focus on radiological controls and FTS Operations.

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Nondestructive Examination (NDE) of Contamination in the KE Basin Walls and Floors — A significant activity necessary to deactivate the 100 Area KE Basin is to characterize the level of contamination in the basin's unsealed concrete walls and floor. This characterization data will be used as part of the technical basis to determine the methods to be applied in completing the deactivation of the basin, once the fuel and sludge have been removed.

The SNF Project will be using nondestructive (gamma scanning) techniques and detector systems, developed by the Pacific Northwest National Laboratory, to acquire data on the depth of radionuclide penetration in the basin's concrete walls and floors. This is the first time the NDE technique will be used to obtain characterization data with the facility in normal operation, with its full inventory of fuel, sludge and contaminated water. If successful, the data will be used, in conjunction with other information, to determine which deactivation methods can realistically be used to remove/reduce the radiological dose/contamination, as well as to determine which basin areas are in the greatest need of mitigation. After initial deployment in the KE Basin, the wall detector system received basin water contamination, which must be resolved before data gathering can resume. Recovery efforts have been post-poned to December 2002, due to other KE Basin priority work.

Opportunities for Improvement

Fuel Transfer System — Bring the FTS on line and move to an operations production level of ten cask shipments per week.

UPCOMING ACTIVITIES

SWS — Receive first Sludge Transportation System (STS) November 5, 2002

FTS — Begin DOE ORR by November 6, 2002.

FTS — Begin KE to KW fuel transfer by November 30, 2002 (M-34-17).

SWS — Install all basin systems [includes: Mechanical, electrical, crane, Closed Circuit Television (CCTV), etc.; CCTV will be last] in December 2002.

MCO Welding — Begin welding of MCOs at CSB in February 2003.

Fuel Retrieval System (FRS) — Complete construction activities for KW Basins SNF scrap removal system in February 2003.

MILESTONE ACHIEVEMENT

FH Contract Milestones

Number	Milestone Title	Type (TPA/DNF SB/PI)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-06-T01	Initiate K West (KW) Basin Spent Nuclear Fuel (SNF) Canister Cleaning Operations	TPA	08/31/01	3/15/02		Complete
M-34-29	Complete K East (KE) Basin and KW Basin facility modifications for AFTS casks transportation system	TPA	3/31/02	9/12/02		Complete
M-34-12-T01	Complete construction of Sludge Water System (SWS) (Construction Completion Document Section IIA.)	TPA	09/30/02		2/28/03	Behind schedule due to delayed subcontractor delivery dates. Complete construction forecast 2/28/03.
M-34-17	Initiate KE to KW fuel transfer	TPA / PI	11/30/02		11/30/02	On schedule. Contractor ORR complete. DOE ORR to begin 11/6/02. First shipment scheduled for 11/25/02.
M-34-18A	Complete removal of 957 Metric Tons of Heavy Metal (MTHM) of SNF from the KW Basin	All 3	12/31/02		12/31/02	Working recovery schedule; Currently 11.31 MTHM or 3 MCOs behind recovery plan.
M-34-08	Initiate full scale KE basin sludge removal	TPA/DNFSB	12/31/02		5/28/03	Behind schedule. TPA milestone forecast is 5/28/03. Target is 3/24/03.

MILESTONE ACHIEVEMENT (CONTINUED)

Number	Milestone Title	Type (TPA/DNF SB/PI)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-27-T01	Complete removal of 1252 MTHM of SNF from KW Basin	TPA	5/31/03		5/31/03	On schedule
S09-03-010	Decide treatment path for sodium removal from FFTF.	TIP	09/30/03		09/30/03	On schedule
M-34-28	Complete removal of 1619 MTHM from the KW Basin	TPA	12/31/03		12/31/03	On schedule
M-34-25-T01	Complete transfer of KE Basin SNF to KW Basin	TPA	5/31/04		5/31/04	On schedule
M-34-18B	Complete removal of all K Basin SNF	ALL 3	7/31/04		7/31/04	On schedule
M-34-10	Complete sludge removal from K Basins.	ALL 3	8/31/04		8/31/04	On schedule
M-34-23	Start KE water removal	TPA	9/30/04		9/30/04	On schedule
M-34-09-T01	Complete K Basins rack and canister removal	TPA / PI	1/31/05		1/31/05	On schedule
M-34-24	Complete KE Basin Water removal	TPA	9/30/05		9/30/05	On schedule
M-34-21-T01	Initiate full-scale KW Basin water removal	PI	10/31/05		10/31/05	On Schedule
S06-06-006	Complete K Basin water removal	PI (Stretch)	4/30/06		4/30/06	On schedule
M-34-22	Complete KW Basin water removal	TPA / PI	8/31/06		8/31/06	On schedule
S06-06-004	Complete transition activities for CVDF and other facilities	PI	9/30/06		9/30/06	On schedule
S06-06-005	Transfer of K Basins to the River Corridor Contractor	PI (Stretch)	9/30/06		9/30/06	On schedule

NOTE: Above data includes all TPA/DNFSB/Performance Incentive milestones as included in the FH baseline, and provides Contract-to Date status.

Performance Objectives

Move Fuel Away from the River

EXPECTATION: Remove spent fuel from K Basins

Move 720.1 Metric Tons Heavy Metal from KW Basin by end of FY 2002

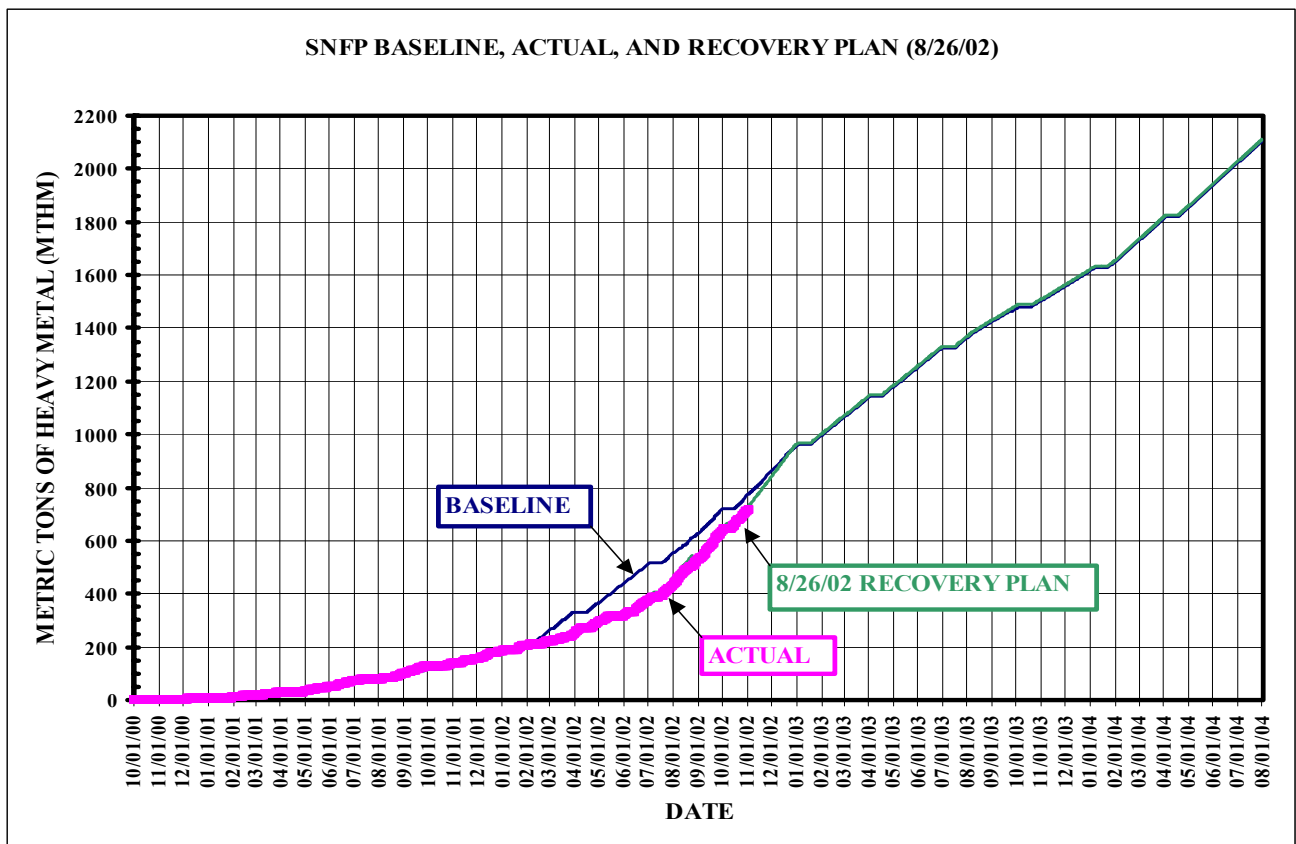
Status: A cumulative total of 138 MCOs and 716.24 MTHMs have been shipped. Currently 11.31 MTHM or three MCOs behind the August 26, 2002 Recovery Plan (30 days behind baseline schedule; recovered 33 days against baseline schedule during the last 123 days of operation) as of November 3, 2002. The project continues to work Plant Improvement Initiatives identified through the Requirements Improvement Team.

Complete construction on Fuel Transfer System by March 31, 2002

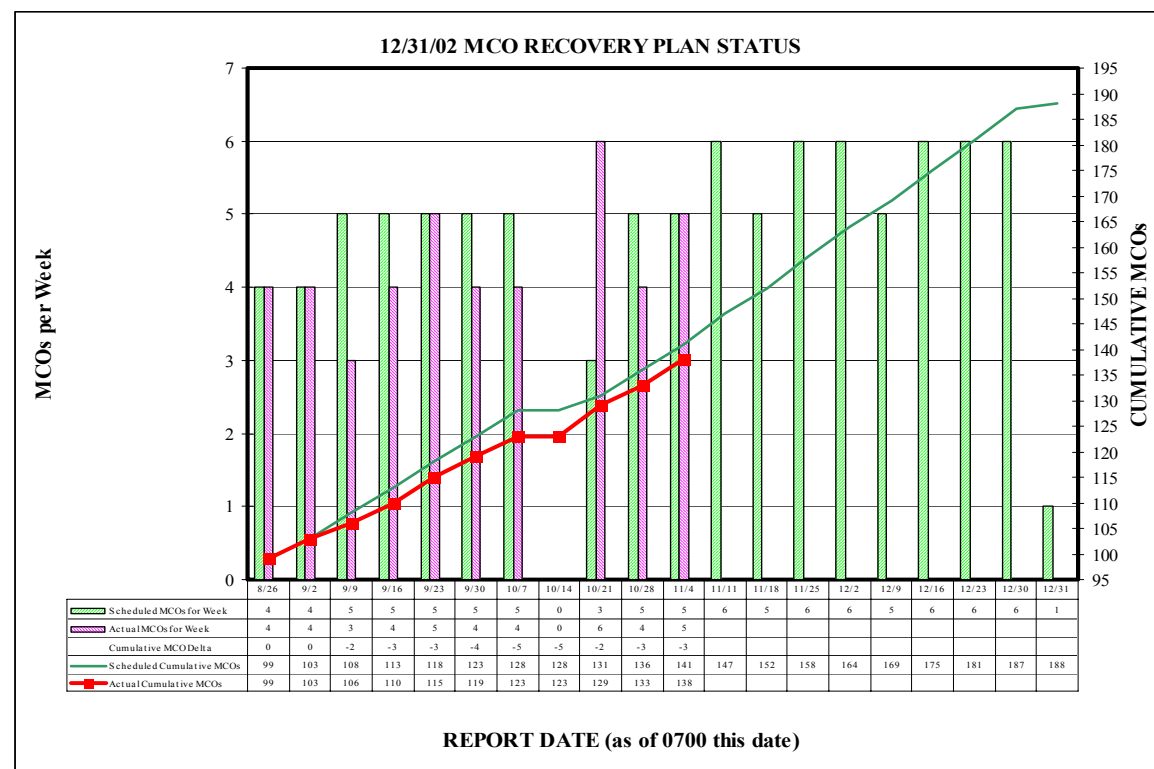
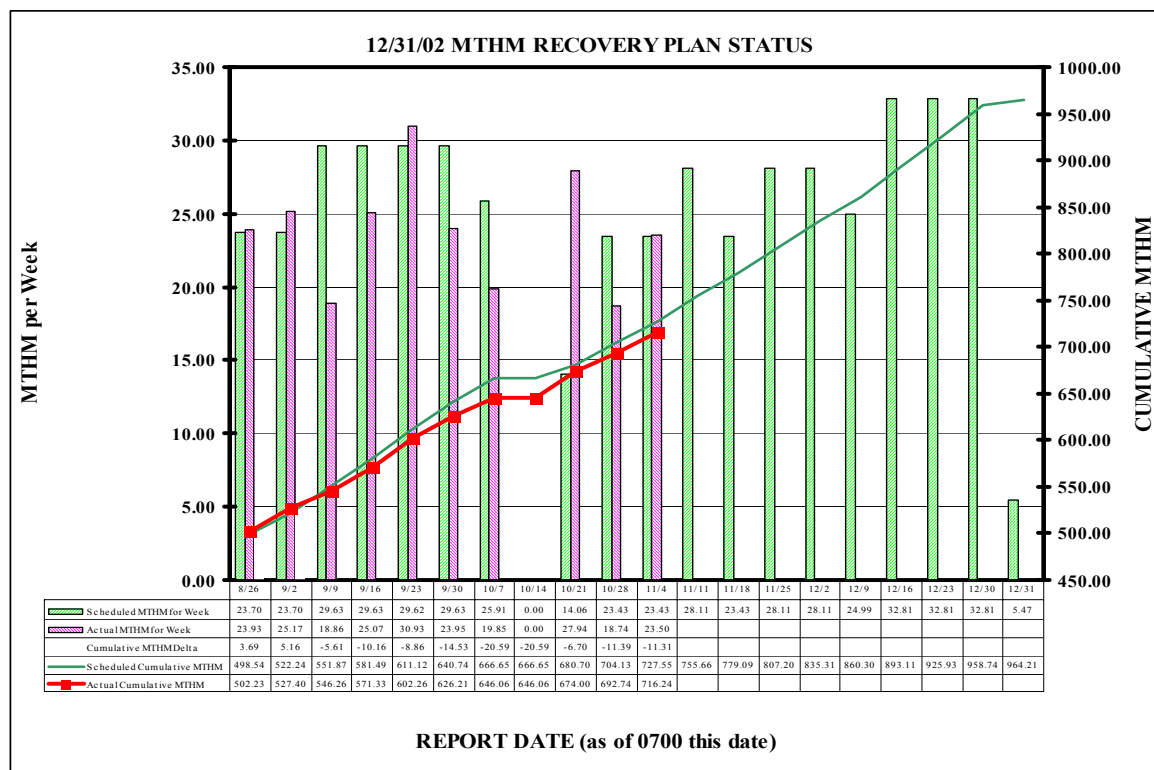
Status: Complete. Section 1B of the Construction Completion Document was signed off as complete September 12, 2002.

Commence KE to KW Fuel Transfer by November 30, 2002

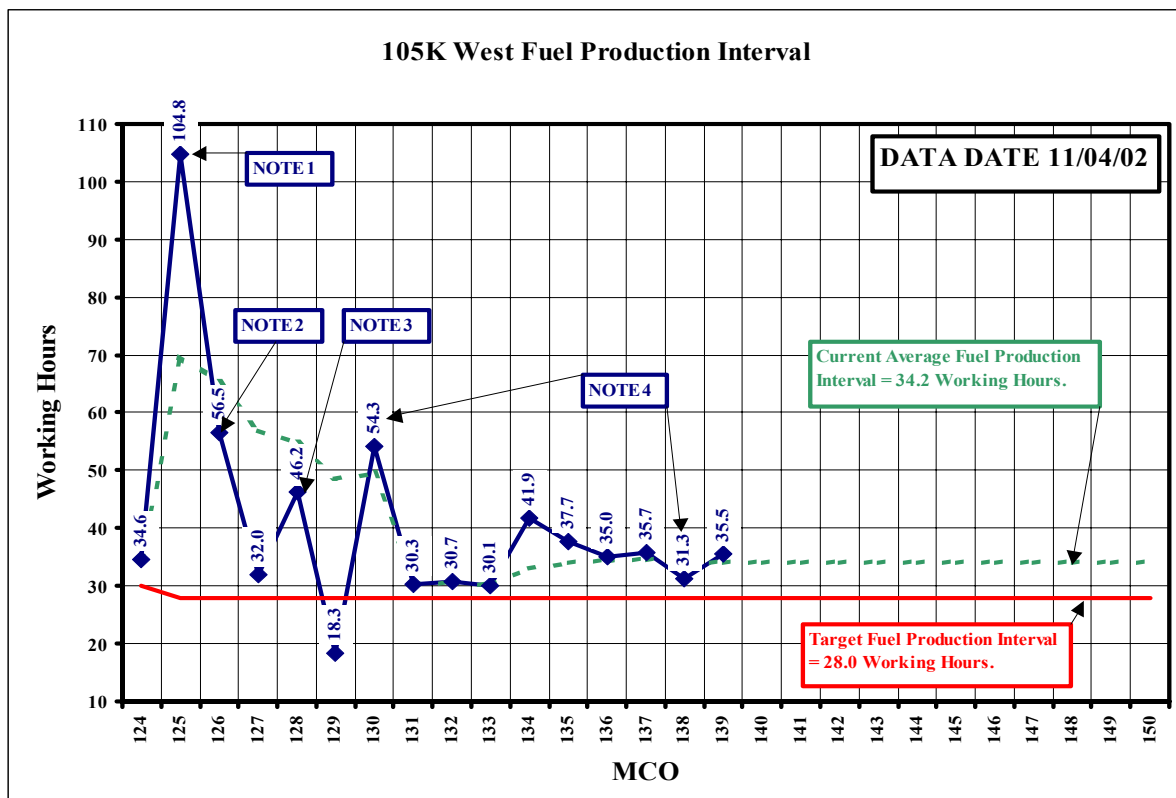
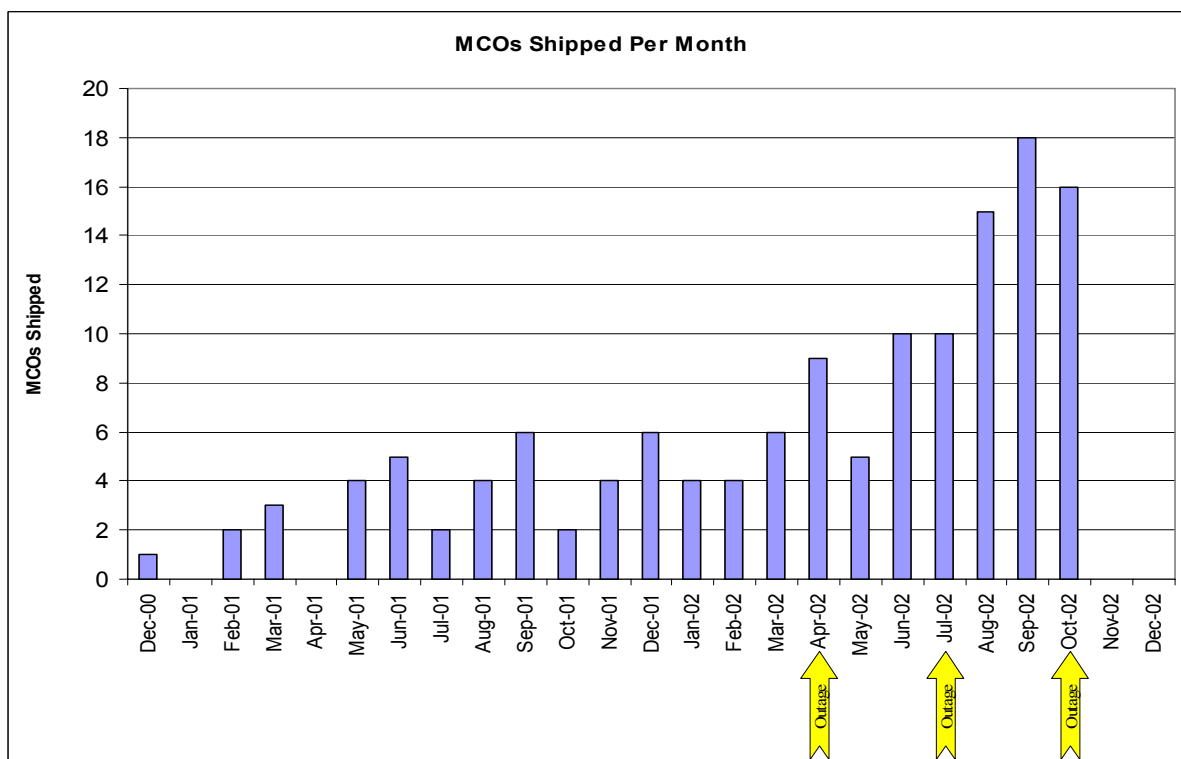
Status: On schedule. The contractor ORR began September 25, 2002 and was completed October 10, 2002. DOE ORR is scheduled to commence November 6, 2002.



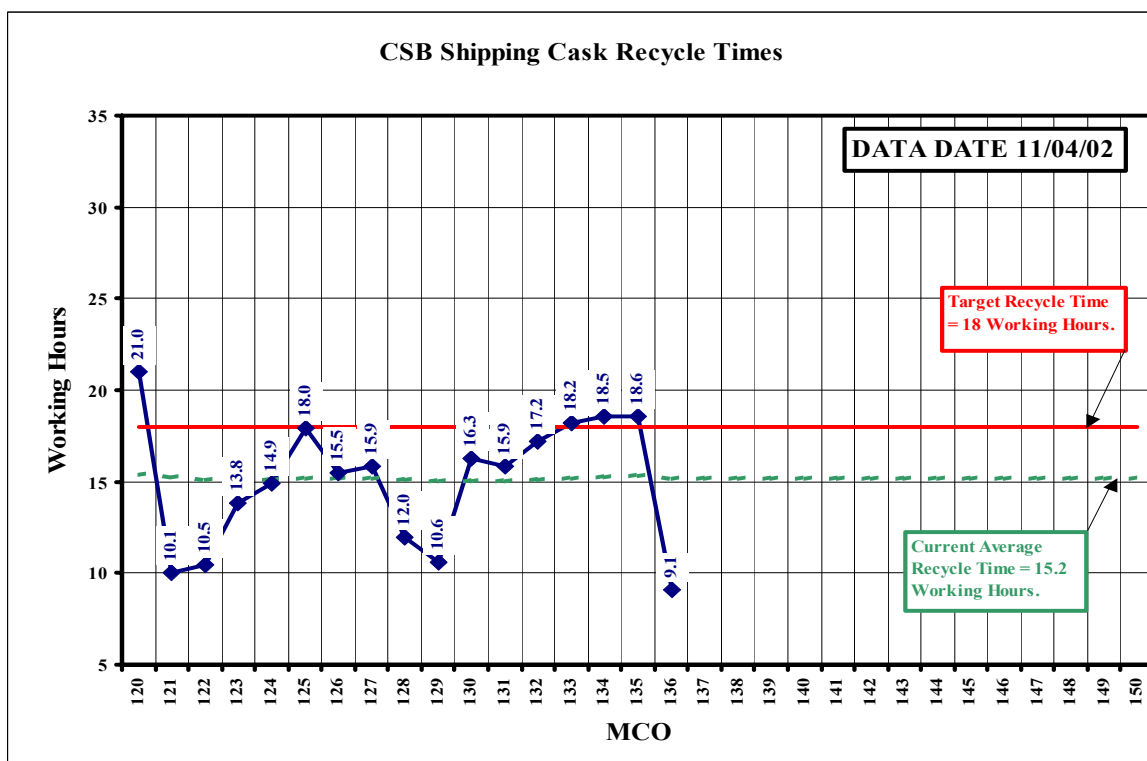
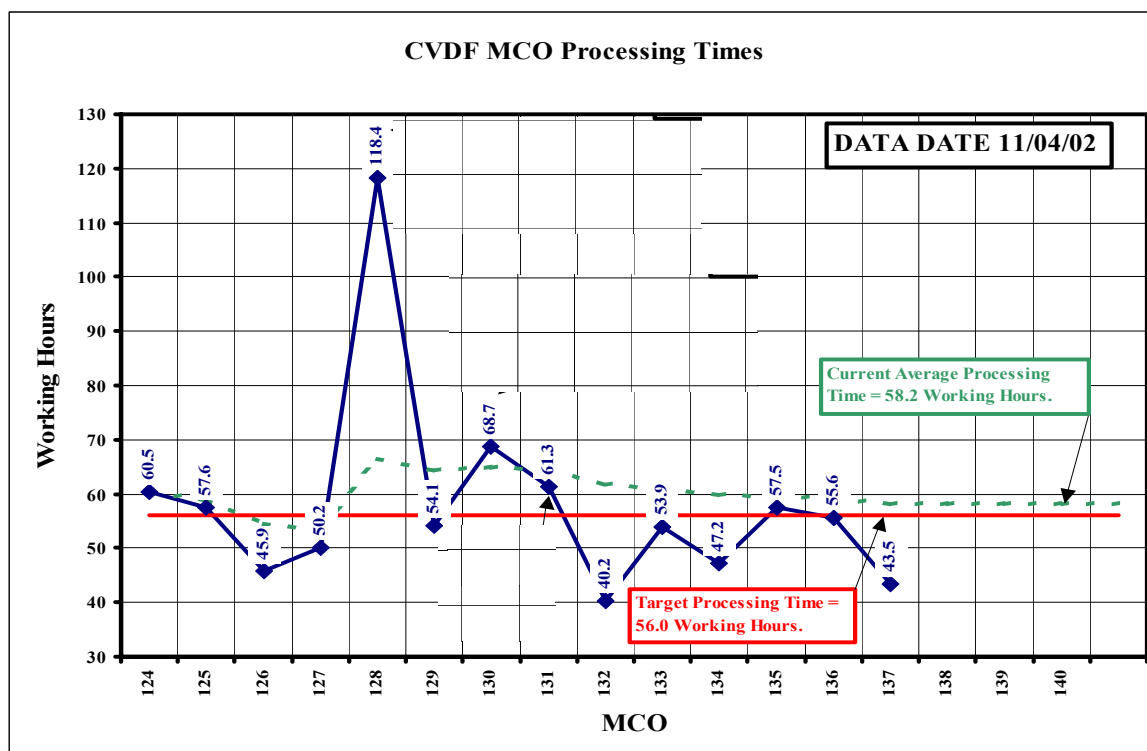
PERFORMANCE OBJECTIVES (CONTINUED)



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EXPECTATION: Move Sludge and Water from K Basins

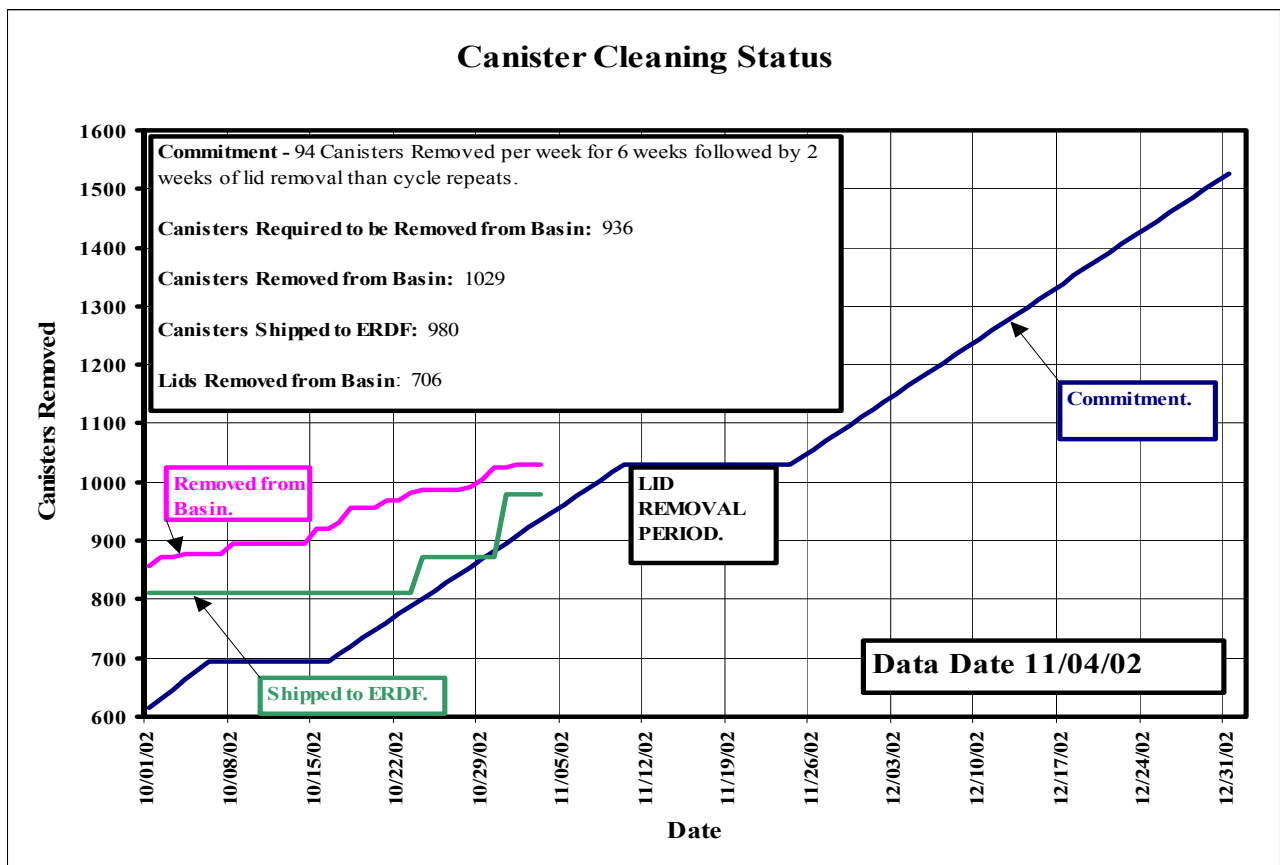
Initiate Sludge Movement by December 31, 2002.

Status: Submitted revised project completion schedule on October 31, 2002. Tri-Party Agreement (TPA) milestone forecast is May 28, 2003. Target is March 24, 2003. Continue to work with subcontractors to expedite delivery of two STS systems (LDC, Cask and Trailer). First system to be delivered by November 5, 2002.

EXPECTATION: Remove canisters from K Basins

Remove 600 canisters from KW by fiscal year end.

Status: The project has cumulatively removed a total of 1029 canisters and 706 lids from the K Basins, and shipped a total of 980 canisters to ERDF.



Consolidate Non-Production Reactor Fuel

EXPECTATION: Consolidate site-wide non-production reactor fuel in 200 Area

Move .02 MTHM in fiscal year 2002.

Status: Received one shipments of Light Water Reactor (LWR) fuel from the 324 Building during the reporting period. Five of a total of six LWR shipments have been received to date. Received one additional shipments of Shippingport Reactor SNF from T-Plant. Five of a total of 18 shipments have been received to date.

ISSUES

Technical Issues

Issue: MCO number 63 did not pass its integrity test.

Corrective Actions: The disposition of MCO #63 was established as a top priority by the Requirements Improvement Team. The MCO was shipped to the CSB on October 8, 2002. This issue is now complete.

Impact: Negative impact toward meeting fuel movement commitments.

Issue: Equipment reliability continues to be a major focus for sustaining fuel movement.

Corrective Actions: A number of Fluor consultant recommendations have been incorporated into the KW manipulator repair program, and have resulted in maintenance staff-hour savings. A Reliability, Availability, Maintainability (RAM) Engineering Group is being formed within the Engineering organization to apply similar analyses to other, high-priority equipment.

Impact: Continued equipment failures may negatively impact meeting fuel movement commitments.

Issue: Production schedule improvement.

Corrective Actions: Continue to work with RL to gain approval to implement breakthrough initiatives identified by the Requirements Improvement Team. Three of the issues have been completed to date.

Impact: The SNF Project's production rate must increase in order to meet the December 30, 2002 fuel movement milestone date.

Issue: FTS construction completion and initiate fuel transfer.

Corrective Actions: Section 1B of the Construction Completion Document was signed off as complete September 12, 2002, completing the milestone M-34-29. The contractor ORR began September 25, 2002 and was complete October 10, 2002. DOE ORR is scheduled to commence November 6, 2002.

Impact: FTS milestone scheduled for completion March 31, 2002, was completed September 12, 2002. No impact to the milestone to begin FTS operations by November 30, 2002.

Issue: SWS Schedule Delays.

Corrective Actions: Submitted revised project completion schedule on October 31, 2002. Tri-Party Agreement (TPA) milestone forecast is May 28, 2003. Target is March 24, 2003. Continue to work with subcontractors to expedite delivery of two STS systems (LDC, Cask and Trailer). First system to be delivered by November 5, 2002.

Impact: The December 31, 2002 milestone to begin sludge removal from the KE Basin (M-34-08) TPA forecast for completion by May 28, 2003.

Regulatory, External, and DOE Issues and DOE Requests

None to report.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

Baseline Change Log						
BCR No./ WBS	Level 4	Date Originated	Description	Impact		Status
				Days	Dollars (\$000s)	
RS03-2002-013		9/25/02	Delete TIP milestone 510-99-950- Select pool decontamination method	0	0	10/13/02